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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,763	04/16/2007	Frank C. Dachille	8095-15 US	1247

7590  
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01/09/2008

EXAMINER

BITAR, NANCY

ART UNIT	PAPER NUMBER
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2624

MAIL DATE	DELIVERY MODE
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01/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/580,763	Applicant(s) DACHILLE ET AL.	
	Examiner Nancy Bitar	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### Examiner Notes

1. Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1- 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over McAuliffe et al ( Medical Image Processing, Analysis and Visualization in Clinical Research) in view of Bitter et al ( 2005/0228250).

As to claim1, McAuliffe wt al. teaches a method for processing image data, comprising: obtaining image data ( read and write image data set, page 382, section b); automatically processing the image data using a set of directives to identify a target

object in the image data and process the image data according to a specified protocol ( VOI, automatic generation, page 382); and automatically generating one or more images of the target object based on one or more of the directives (Image segmentation is the process of identifying *connected* regions of images as members of a common group that can be delineated by VOI structures. , page 384, section 3.1); and storing the one or more generated images in a digital archive (The data-type buffer is n-dimensional, but typically, images up to four dimensions are stored and processed, page 382, section 2). While McAuliffe meets a number of the limitations of the claimed invention, as pointed out more fully above, McAuliffe 'fails to specifically teach 'processing the image data using a set of directives to identify a target as required by the claim language . Specifically, Bitter et al. teaches in figure 2 A medical imaging device generates a 2D image dataset comprising a plurality of 2D DICOM-formatted images (slices) of a particular anatomical area of interest (step 27). The 3D imaging system (18) receives the DICOM-formatted 2D images (step 28) and then generates an initial 3D model (step 29) from a CT volume dataset derived from the 2D slices using known techniques., paragraph [0036]. it would have been obvious to one of ordinary skill in the art to use the set of directives in McAuliffe VOI automatic generation in order to obtain useful 3D information and facilitate diagnose stenosis or other abnormalities .Therefore, the claimed invention would have been obvious to one of ordinary skill in the art at the time of the invention by applicant.

As to claim 2, McAuliffe teaches the method of claim 1, wherein the image data comprises DICOM-formatted image data (DICOM server located on the imaging device

(i.e. CT or MRI machine), or any other DICOM compliant server (Figure 2)., see also Bitter et al figure 1)

As to claim 3, McAuliffe teaches the method of claim 2, wherein automatically processing the image data using a set of directives comprises processing meta-data in DICOM fields to identify the target object ( DICOM server, see figure 2). Bitter et al teaches The GUI module (30) receives and stores configuration data from database (35). The configuration data comprises meta-data for various patient studies to enable a stored patient study to be reviewed for reference and follow-up evaluation of patient response treatment, paragraph [0038])

As to claim 4, McAuliffe teaches method of claim 1, wherein automatically processing the image data comprises segmenting the target object using processing parameters specified by one or more of the directives (MIPAV also enables the user to apply custom segmentation algorithms and the calculation of VOI statistics such as: area volume, orientation, number of pixels, center of mass, average density, page 384, section 2c).

Claims 5-8 differ from claims 1-4 Y only in that claims 1-4 are method claims whereas, claims 5-8 are a system claim. Thus, claims 5-8 are analyzed as previously discussed with respect to claims 1-4 above.

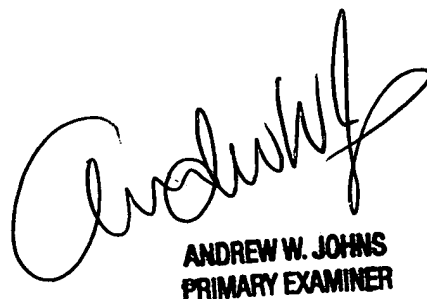
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nancy Bitar whose telephone number is 571-270-1041. The examiner can normally be reached on Mon-Fri (7:30a.m. to 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nancy Bitar

1/1/2008



**ANDREW W. JOHNS**  
**PRIMARY EXAMINER**